

ZHDANOVA, M.P.

Penicillin therapy of acute and chronic maxillary sinusitis. Vest.  
oto-rin. 16 no.5:28-30 S-0 '54. (MLRA 7:12)

1. Iz kafedry bolezney ukha, gorla i nosa (zav. prof. A.M.Natanson)  
Khar'kovskogo meditsinskogo instituta.  
(SINUSITIS, therapy,  
penicillin in maxillary)  
(PENICILLIN, therapeutic use,  
sinusitis, maxillary)

ZHDANOVA, M.P., kand. med. nauk

Rare case of capillary hemangioma of the trachea. Zhur.  
ush., nos. 1 gorl. bol. 23 no.1:77 Ja-F '63.

(MIRA 17:2)

1. Iz kafedry bolezney ukha, gorla i nosa (ispol'nyayushchiy  
obyazannosti sveduyushchego - dotsent D.Ye. Rozengauz)  
Khar'kovskogo meditsinskogo instituta.

SINEL'NIKOV, S.N., doktor meditsinskikh nauk; ZHDANOVA, M.P., kand.med.nauk

State of the cardiovascular system in rheumatic fever following tonsillectomy. Zhur. ush. nos. i gorl. bol. 21 no.4:7-11 J1-Ag '63.  
(MIRA 15:1)

1. Iz kafedry propedvtiki vnutrennikh bolezney (zav. - prof. S.N.Sinel'nikov) i kafedry bolezney ukha, gorla i nosa (ispolnyayushchiy obyazannosti zaveduyushchego kafedroy - dotsent D.Ye.Rozengauz) Khar'kovskogo meditsinskogo instituta,  
(RHEUMATIC FEVER) (TONSILS SURGERY)  
(CARDIOVASCULAR SYSTEM)



ZHDANOVA, M.V.

Potentiometric determination of silver in photographic materials.  
Zav.lab. 29 no.11:1307 '63. (MIRA 16:12)

1. Leningradskaya fabrika fotobumag No.4.



USSR / Diseases of Farm Animals. Diseases Caused  
by Helminths

R-2

Abs Jour: Ref Zhur-Biol., No 2, 1958, 7355

Author : M. G. Zhdanova

Inst : Uzbek Agricultural Institute

Title : A Rare Case of Coenurosis of Hogs

Orig Pub: Nauchn. tr. Uzb. s-kh. in-ta, 1956, 10, 334-  
335

Abstract: In the pathological-anatomical dissection on a  
two year old hog the opening up of the head  
revealed a coenurosis blister with scolex of  
an oval shape, and 3.3 x 2.5 centimeters in size.

Card 1/1

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-

ZHDANOVA, M.Zh., inzh.; YEGUDOV, S.M., inzh.; BUNIN, V.A., kand.  
tekhn. nauk; SUKHAREVA, R.A., red.; KURILKO, T.M., tekhn.  
red.

[A collection of patents; telecommunication]Sbornik izobre-  
tenii; sviaz'. Moskva, TSentr. biuro tekhn. informatsii,  
1961. 119 p. (MIRA 15:8)

1. Russia (1923-- U.S.S.R.)Komitet po delam izobreteniy i  
otkrytiy.

(Telecommunication--Patents)

(Electronic apparatus and appliances--Patents)

BUNIN, V.A., kand. tekhn. nauk; YEGUDOV, S.M., inzh.; ZHDANOVA, M.Zh.,  
inzh.; SUKHAREVA, R.A., red.; KUDRYAVITSKAYA, A.A., tekhn. red.

[Collection of inventions; radio electronics] Sbornik izobre-  
tenii; radioelektronika. Moskva, TSentr.biuro tekhn.informatsii,  
1961. 259 p. (MIRA 15:1)

1. Russia (1923- U.S.S.R.) Komitet po delam izobretenii i ot-  
krytii.

(Radio)

(Electronics)

ZHDANOVA, N.; KHALIF, A.

Drying of gases by the liquid process at elevated temperatures.  
Gaz.prom. 4 no.9:48-51 S '59. (MIRA 12:11)  
(Gases--Drying)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-9

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CIA-RDP86-00513R002064620020-9"

COUNTRY : USSR  
CATEGORY :

M-2

ABS. JOUR. : RZBiol., No. 19, 1958, No. 87218

AUTHOR : Zhdanova, N. A.  
INST. :

TITLE : Commercial Evaluation of Principal Varieties  
of Apple Trees.

ORIG. PUB. : Sad 1 ogorod, 1957, No 6, 38-42

ABSTRACT : The best varieties of apple trees, under the  
conditions of state farm "Agronom" in Lipetskaya Oblast',  
are the following: Pepin Shafranny, common Antonovka,  
Korichnevoye Polosatoye, Osenneye Polosatoye, and Pa-  
pirovka.

CARD: //

ZHDANOVA, N.F.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1322  
AUTHOR ZHDANOVA, N.F.  
TITLE The Temperature Dependence of Viscosity on Liquified Nitrogen  
with Density being Constant.  
PERIODICAL Zhurn.eksp.i teor.fis, 31, fasc. 1, 14-17 (1956)  
Issued: 9 / 1956 reviewed: 9 / 1956

The present work extends the investigation of this temperature dependence to a voluminous range of values of the density of the liquid comprising values ranging from near triple point up to the critical point. As a test object liquid nitrogen was used, i.e. a simple nonpolar liquid. The systematic and thorough study of these substances is interesting with respect to the setting up of a theory of the liquid state of matter.

Measuring method and apparatus: For these investigations the viscosimeter designed by B.I.VERKIN and N.S.RUDENKO, Zhurn.eksp.i teor.fis, 20, 523 (1955) and produced by the laboratory for low temperatures of the Physical-Technical Institute of the Academy of Science was used. The viscosity coefficient of the liquid nitrogen was measured by the relative method. The liquid nitrogen was distilled before condensation in the viscosimeter.

Test results are illustrated by means of a diagram. On this occasion the values of the viscosity are represented as functions of temperature. According to VERKIN and RUDENKO the temperature coefficient of the viscosity of Ar and N<sub>2</sub> changes its sign when passing through the density domain near critical density, which was experimentally confirmed on this occasion. However, the character of the temperature dependence of the viscosity of liquid nitrogen

Žurn. eksp. i teor. fis, 31, fasc. 1, 14-17 (1956) CARD 2 / 2 PA - 1322

does not change near critical density, but at about the double value of critical density. In liquid nitrogen there are two domains with different characters of the temperature dependence of viscosity. With densities  $\rho > 2 \rho_k$  ( $\rho_k$  here denotes the density at the critical point) its viscosity decreases with rising temperature (like in the case of liquids), but with  $\rho < 2 \rho_k$  viscosity increases with rising temperature (like in the case of gases. In the case of a density of  $\rho = 0,60$  ( $\rho \sim 2 \rho_k$ ) viscosity does not depend on temperature. In a diagram (abscissae-density  $\rho$ , ordinates-viscosity  $\eta$ ) the family of viscosity isothermes is represented. In the case of liquid nitrogen all isothermes intersect at  $\rho \sim 2 \rho_k$ . At  $\rho > 0,6 \text{ g/cm}^3 \sim 2 \rho_k$  it is true (with liquid nitrogen) that  $\eta = Ae^{U/kT}$ . This exponential law holds good up to temperatures near  $T_k$ . In the case of liquid nitrogen it is true that with  $\rho < 2 \rho_k$   $(\partial\eta/\partial T)_\rho < 0$  and with  $\rho > 2 \rho_k$   $(\partial\eta/\partial T)_\rho > 0$ . This change of the character of temperature dependence is probably due to a change of the mechanism of viscosity.

INSTITUTION: State University of CHAR'KOV

ZHDANOVA, N.F.; LUBENTSOV, V.F.

Relationship between the quality and resonance clearness of  
quartz elements and the temperature in the range of 80-770° K.  
Trudy Inst.Kom.stand., ser 1 izm.prib. no.59146-49 '62.

(MIRA 16:1)

(Oscillators, Crystal—Thermal properties)

ACCESSION NR: AT4026433

S/2589/62/000/059/0046/0049

AUTHOR: Zhdanova, N. F.; Lubentsov, V. F.

TITLE: The Q-factor and resonance frequency of quartz elements as functions of temperature in the 80-770K range

SOURCE: USSR. Komitet standartov, mor i izmeritel'ny\*kh priborov. Trudy\* institutov Komiteta, no. 59 (119), 1962. Issledovaniya v oblasti izmereniya chastoty\* (Investigations in the field of frequency measurement), 46-49

TOPIC TAGS: frequency measurement, resonance frequency, quartz, quartz element, Q factor, resonance frequency temperature dependence, Q factor temperature dependence

ABSTRACT: Since quartz elements are used in various types of highly accurate generators and clocks exposed to variable conditions, the Q-factor was determined every 0.1 C by measuring the time of the free oscillation-amplitude attenuation of the quartz element a specific number of times, using a special automatic instrument. The error in the measurement of Q is determined by inconsistencies in the measurement of the attenuation time and, in the case of the instrument employed, was on the order of +3% for  $Q = 2 \cdot 10^4$  and on the order of +1% for  $Q = 6 \cdot 10^4$  and above. The resonance frequency  $f_0$  was measured by the so-called heterodyne method, the quartz element being excited either by the circuitry of

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ACCESSION NR: AT4026433

the Q-measuring instrument or according to a resonance curve using a frequency standard and an audio generator. The error in the measurement of  $f_0$  did not exceed  $+1 \cdot 10^{-7}$ . For measurements in the 80-300K range, a vacuum-sealed quartz element was placed in a massive copper cylinder which was lowered into a Dewar flask with liquid nitrogen. The complete test methodology is described in the article. For measurements in the 300-770K interval, a quartz bar was fastened by a tungsten wire, about 0.03 microns in diameter, in a conventional box-type holder set in a tube of quartz glass in which a pressure of approximately  $1 \cdot 10^{-5}$  mm of mercury was maintained. Measurements in the 300-770K interval were conducted for 28-30 hours and the results in the determination of  $f_0$ , with the heating and cooling of the quartz bar, coincided for the same temperature within  $\pm 0.1$  cycle. The dependence of Q and  $f_0$  on the environmental temperature was determined for various types of fastening arrangements and quartz element holders. The test conditions are described in some detail in the text. From the results of the investigation it follows that in a temperature interval of approximately 80-130K for bars with a certain type of fastening arrangement and 80-200K for bars fastened differently, there are abrupt changes in Q as a result of the use of silk wires for the binding. As temperature is lowered from 300 to 80K, the Q factor generally increases by an average of 2 - 20 times in the 80-110K region. For fastening arrangements and electrodes of identical construction, Q as a temperature function remains, on the average, the same. As the temperature is increased

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ACCESSION NR: AT4026433

from 300 to 770K, an increase in Q is observed for the bars in the approximate region of 350-380K, after which the Q decreases until the 770K mark. It was also found that the variation in resonance frequency  $f_0$  with temperature is gradual and smooth. For quartz bars with electrodes superimposed on the surface, the dependence of  $f_0$  on temperature in the 80-300K interval is of the type shown in Fig. 1 of the Enclosure. The change in  $f_0$  takes place primarily as a result of changes in the geometric dimensions of the quartz bar, electrodes and elastic properties of the quartz, while the effect of the change in electrode dimensions is of noticeable significance, in the given case, due to the small gap between the surface of the bar and the exciting electrodes. Orig. art. has: 7 figures.

ASSOCIATION: Komitet standartov, mer i izmeritel'nykh priborov (Committee for Standards, Measures and Measuring Instruments)

SUBMITTED: 00May60

DATE ACQ: 24Apr64

ENCL: 01

SUB CODE: AS, PH

NO REF SOV: 003

OTHER: 004

Card 3/4

ZHDANOVA, N.F.

Temperature dependence of the viscosity of liquid nitrogen at  
constant density. Zhur. eksp. i teor. fiz. 31 no.1:14-17 J1 '56.  
(MLRA 9:11)

1. Khar'kovskiy gosudarstvennyy universitet.  
(Nitrogen) (Viscosity) (Low temperature research)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-9

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-9"

ZHDANOVA, N.F.

Temperature dependence of the viscosity of liquid argon. Zhur. eksp.  
i teor. fiz. 31 no.4:724-725 0 '56. (MIRA 9:12)

1. Khar'kovskiy gosudarstvennyy universitet.  
(Argon) (Low temperature research)



*N. F. Zhdanova, V. I.*

USSR/Physical Chemistry. Liquids and Amorphous Bodies.  
Gases.

B-6

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14573

Author : N. F. Zhdanova

Inst :

Title : Temperature Dependence of Viscosity of Liquid Nitrogen  
at Constant Density.

Orig Pub: Zh. eksperim. i teor. fiziki, 1956, 31, No 1, 14-17

Abstract: The temperature dependence of viscosity of liquid nitrogen at its constant density was investigated with a viscosimeter constructed by B. I. Verkin and N. S. Rudenko (Zh. eksperiment. i teor. fiziki, 1950, 20, 523). The measurements were carried out within the density  $\rho$  range from 0.38 to 0.86 g per cub. cm and the temperature range from the condensation temperature at a preset density to 300°K. The viscosity (fluidity) of liquid nitrogen at a constant  $\rho$  proved to be strongly dependent on the temperature. At  $\rho$  greater than  $2\rho(\text{cr.})$ , the temperature

Card 1/2

USSR/Physical Chemistry. Liquids and Amorphous Bodies.  
Gases.

B-6

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14573

Abstract: dependence of viscosity is described by an exponential law up to temperatures close to  $T$  (cr.). In the case of liquid nitrogen,  $(\partial\varphi/\partial T)_\rho$  is greater than zero, if  $\rho > 2\rho$  (cr.), and it is less than zero, if  $\rho < 2\rho$  (cr.), where  $\varphi$  is the fluidity here. It is surmised that the exchange of the temperature dependence of viscosity from the liquid type dependence to the gaseous type dependence is connected with the alteration of the flow mechanism.

Card 2/2

ZHDANOVA, N. F.

ZHDANOVA, N. F. — "The Viscosity of Liquefied Gases at Constant Density." Min Higher Education Ukrainian SSR. Khar'kov Order of Labor Red Banner State U imeni A. M. Gor'kiy. Khar'kov, 1956  
(Dissertation for the Degree of Doctor in Physicomathematical Sciences).

SO: Knizhnaya Letopis', No 9, 1956

ZHDANOVA, N.G.; KALASHNIKOV, S.G.; MOROZOV, A.I.

Effect of temperature on the rate of recombination of electrons  
and holes on copper atoms in germanium. *Fiz. tver. tela* 1 no.4:  
535-544 '59. (MIRA 12:6)

1. Institut radiotekhniki i elektroniki AN SSSR, Moskva.  
(Copper) (Germanium)

ACCESSION NR: APL013502

S/0181/64/006/002/0440/0444

AUTHORS: Zhdanova, N. G.; Kalashnikov, S. G.

TITLE: The effect of temperature on the kinetics of damping impurity photoconductivity in copper doped germanium

SOURCE: Fizika tverdogo tela, v. 6, no. 2, 1964, 440-444

TOPIC TAGS: impurity, impurity photoconductivity, photoconductivity, germanium, copper, copper doped germanium, photoionization, photoionization cross section, capture coefficient, n type germanium

ABSTRACT: This study was made in the temperature interval 60-235K in n-type Ge by electron excitation of the outer copper level with  $E_c = 0.26$  ev. It was found that the temperature coefficient of capture for electrons from this level, throughout the rather wide investigated temperature range, differs appreciably from an exponential relationship, and is best defined by the formula

$$\tau_n \sim \exp\left(-\frac{T_0}{T}\right)^{1/2},$$

in which full consideration is given to tunnel leakage of electrons through the

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ACCESSION NR: AP4013502

potential barrier of the center. In a number of samples the damping of impurity photoconductivity was defined by two exponents with markedly different time constants. It was found that the time constant of the long exponent was not inversely proportional to  $n_0$ , but that the short exponent was. The time constant increased with decrease in intensity of illumination. The authors conclude that the long exponent is not associated with electron capture at the outer Cu level, and, because of this, results of experiments in which this long exponent was observed should not be used. The long exponent was observed in crystals with high dislocation density and with no dislocations. The explanation is not known. For the specimens used it was found that the photoionization cross section of the investigated level is practically independent of temperature. Orig. art. has: 4 figures, 1 table, and 2 formulas.

ASSOCIATION: Institut radiotekhniki i elektroniki AN SSSR, Moscow (Institute of Radio Engineering and Electronics AN SSSR)

SUBMITTED: 03Aug63

DATE ACQ: 03Mar64

ENCL: 00

SUB CODE: PH

NO REF SOV: 008

OTHER: 000

Card 2/2

L 23027-66 EWT(1)/EWT(m)/T/EWP(t) IJP(c) JD/AT

ACC NR: AP6009661 SOURCE CODE: UR/0181/66/003/003/0788/0791

AUTHORS: Zhdanova, N. G.; Kagan, M. S.; Kalashnikov, S. G. 54  
f2  
8

ORG: Institute of Radio Engineering and Electronics, AN SSSR, Moscow  
(Institut radiotekhniki i elektroniki AN SSSR)

TITLE: Instability of current and electric domains in compensated germanium

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 788-791 27

TOPIC TAGS: germanium, photoeffect, crystal structure, semiconductor impurity, *electric current*

ABSTRACT: This is a continuation of earlier work (Phys. Stat. Sol. v. 11, 415, 1965) where it was found that under certain conditions copper-doped or gold-doped germanium is subject to intense low-frequency current oscillations. The present article deals with the properties and nature of these oscillations in n-type germanium containing copper with a partially compensated upper level, under definite illumination conditions, at nitrogen temperatures, and in fields 2

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L 23027-66  
 ACC NR: AP6009661

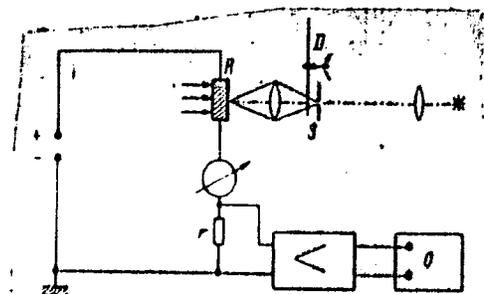


Fig. 1. Diagram of optical probe. R -- sample, r -- load resistance, S -- slit, D -- modulating disc. O -- oscilloscope.

exceeding  $\sim 100$  v/cm. The measurements were made at 90K. To determine the origin of the oscillations, the time dependence of the resistance distribution over the crystal was measured by means of an optical probe (Fig. 1), whereby a narrow fixed image of an illuminated slit could be focused on different parts of the crystal. The measurements have shown that these oscillations, as in other crystals, is due to the formation and motion of electric domains -- regions with large resistance and strong fields. Unlike observations by others (and in other crystals), in some samples the domains were

Card 2/3

L 23027-66

ACC NR: AP6009661

observed not in the entire crystal, but only in a part of the crystal. The velocity of the domain increased with increasing illumination intensity. The period of the spontaneous oscillations of the current is determined by the time necessary for the domain to travel from its place of initiation to the anode. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 24Jul65/ ORIG REF: 001/ OTH REF: 009

Card

3/3 12

L 2404-66 EWT(1)/EWT(m)/EPA(w)-2/EWP(t)/EWP(b)/EWA(m)-2 IJP(c) JD/AT

ACCESSION NR: AP5022469

GE/0030/65/011/001/0415/0428<sup>52</sup>

AUTHOR: Kagan, M. S.; Kalashnikov, S. G.; Zhdanova, N. G.

TITLE: Nonlinear electrical effects and recombination of the hot electrons in compensated germanium

SOURCE: Physica status solidi, v. 11, no. 1, 1965, 415-428

TOPIC TAGS: germanium, semiconductor, hot electron effect, recombination impurity center, capture cross section

ABSTRACT: Steady-state and transient current-voltage characteristics of Cu-doped n-type Ge samples with a partially compensated upper ( $E_v - 0.26$  eV) Cu level were investigated in a field which was varied from 1 to  $10^4$  v/cm. In a field greater than  $\sim 100$  v/cm the current-voltage curves were found to be sublinear. A study was made of the effect of temperature and of the spectrum of the incident light on the steady state and the kinetics of the photocurrent. Negative differential conductivity and coherent low-frequency oscillations were observed at nitrogen temperatures and at high illumination. The nonlinear effects were shown to be due mainly to a decrease of electron

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L 2404-66

ACCESSION NR: AP5022469

concentration in the conduction band. This was ascribed to the field dependence of  $\alpha_n$ , the probability of electron capture by the doubly charged Cu ions. In the strong electric fields the crystals became inhomogeneous due to the formation of strong- and weak-field regions. The possible influence of these inhomogeneities on the nonlinear effects was discussed and the change of  $\alpha_n$  in the the strong field was estimated. Orig. art. has: 13 figures and 13 formulas. [CS]

ASSOCIATION: Institute of Radioengineering and Electronics, Academy of Sciences, USSR, Moscow

SUBMITTED: 05Jul65

ENCL: 00

SUB CODE: SS,EM

NO REF SOV: 006

OTHER: 015

ATD PRESS: 7107

PC  
Card 2/2

ZHDANOVA, N.G.

Coefficients of electron capture by negatively charged impurity centers in germanium. Fiz. tver. tela 6 no.8:2543-2545 Ag '64.  
(MIRA 17:11)

1. Institut radiotekhniki i elektroniki AN SSSR, Moskva.

ACCESSION NR: AP4043394

S/0181/64/006/008/2543/2545

AUTHOR: Zhdanova, N. G.

TITLE: On the coefficients of capture of electrons by negatively charged impurity centers in germanium

SOURCE: Fizika tverdogo tela, v. 6, no. 8, 1964, 2543-2545

TOPIC TAGS: electron capture, capture cross section, impurity center, forbidden band

ABSTRACT: It is shown that although the constant A in the equation for the electron capture coefficient  $\alpha_n = A \exp(-T_0/T)^{1/3}$  does not depend on the temperature, it exhibits a pronounced dependence on the depth of the energy level of the capture center in the forbidden band. This dependence is deduced on the basis of the published experimental data, but it is emphasized that most data cover a narrow temperature range and a relatively small statistical material. "In

Card 1/3

ACCESSION NR: AP4043394

conclusion I thank Ye. G. Landsberg for a discussion." Orig. art.  
has: 1 figure and 1 formula.

ASSOCIATION: Institut radiotekhniki i elektroniki AN SSSR, Moscow  
(Institute of Radio Engineering and Electronics, AN SSSR)

SUBMITTED: 20Mar64

ENCL: 01

SUB CODE: 88

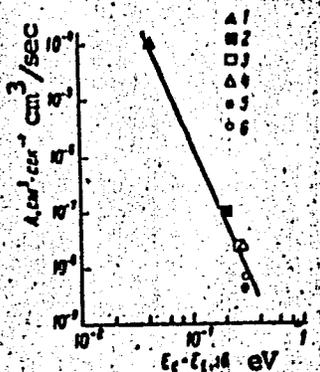
NR REF SOV: 013

OTHER: 001

Card 2/3

ACCESSION NR: AP4043394

ENCLOSURE: 01



Dependence of the coefficient A on the position of the energy level of the electron capture center in the forbidden band

1 - Au<sup>III</sup>, 2 - Au<sup>I</sup>, 3 - Cu<sup>III</sup>, 4 - Fe<sup>III</sup>, 5 - Ni<sup>III</sup>, 6 - Ag<sup>III</sup>

Card 3/3

ZHDANOVA, N.G.; KALASHNIKOV, S.G.

Effect of temperature on the damping kinetics of the extrinsic photo-conductivity in germanium alloyed with copper. Fiz. tver. tela 6 no. 2:440-444 F '64. (MIRA 17:2)

1. Institut radiotekhniki i elektroniki AN SSSR, Moskva.

ZHDANOVA, N.G.; ALEKSEYEVA, V.G.

Temperature effect on the kinetics of the impurity photoconductivity of n-type germanium doped with gold. Fiz. tver. tela 5 no.2: 546-551 F '63. (MIRA 16:5)

1. Institut radiotekhniki i elektroniki AN SSSR, Moskva.  
(Photoconductivity) (Germanium)

Z # DANOVA, N. I.

21(4): 17(0) PHASE I BOOK REPRODUCTION 801/2808  
International Conference on the Peaceful Uses of Atomic Energy. 2d, Geneva, 1958

Doblye sovetskikh uchebnykh radiobiologicheskikh, radiatsionnoy meditsiny i  
meditsiny sovetskikh nauchnykh radiobiologicheskikh i radiatsionnoy meditsiny  
Moscow, Izdatel'stvo Gosstatizna, 1959. 329 p., 8,000 copies printed. (Series:  
Teoriya i praktika nauki i tekhnologii po mirovomu ispol'zovaniyu atomnoy energii  
Trudy, tom 5)

General Ed.: A.V. Lebedinskiy, Corresponding Member, USSR Academy of Medical  
Sciences; Ed.: E.S. Shirokova; Tech. Ed.: T.I. Masal.

PURPOSE: This book is intended for physicians, scientists, and engineers  
as well as for professors and students at various where radiobiology and  
radiation medicine are taught.

CONTENTS: This is Volume 5 of a 6-volume set of reports delivered by Soviet  
scientists at the Second International Conference on the Peaceful Uses of  
Atomic Energy, held on September 1-13, 1958, in Geneva. Volume 5 contains  
13 reports edited by Committee of Medical Sciences I.V. Levinitskiy and V.V.  
Sidor. The reports cover problems of the chemical effects of ionizing  
radiation, future consequences of radiation sickness, use of radioactive isotopes  
of radiation, treatment of radiation sickness, uses of radioactive isotopes  
in medical and biological research, uses of atomic energy for diagnosis  
and therapeutic purposes, soil absorption of uranium fission products,  
their intake by plants, and their storage in plants and foodstuffs.  
References accompany each report.

Reports of Soviet Scientists (Cont.) 801/2808

Galyuda, I.V., and Ye.Y. Zhidkova. The Final Dishes of Strontium, Cesium, and  
Other Fission Products and their Storage in the Tropics (Report No. 2311) 377

Rebinder, E.Z. Mechanism of the Radiation Effect on Heredity and the Problem  
of Radioimmunity (Report No. 2076) 378

Tranquize, G.G. and M.A. Ivanovskaya. Cytochrome X-ray of Ionizing Radiation  
in Model of Monkey Ovary Cells (Report No. 2076) 380

Alibekov, S.I., L.P. Sadina, S.D. Anilina, L.I. Yerebina, V.G. Dubovoy,  
I.P. Zhidkova, O.I. Koshchikova, V.J. Koshchikova, T.A. Koshchikova, A.I. Koshchikova,  
M.I. Koshchikova, and A.P. Petrovskaya. Genetic Effect of Radiation and the  
Isolation of Microorganisms Producing Antitoxins (Report No. 2055) 396

AVAILABILITY: Library of Congress (DTIC-133)  
Card 7/7  
801/2808  
1-5-60

17(4,10)

**AUTHORS:**

Alikhanyan, S. I., Klepikova, F. S., SOV/20-125-3-51/63  
Mindlin, S. Z., Garina, K. P., Zhdanova, N. I.

**TITLE:**

Characteristics of the Induced Mutation Process in  
Actinomycetes - the Producers of Antibiotics. (Osobennosti  
indutsirovannogo mutatsionnogo protsessa u aktinomitsetov -  
produktentov antibiotikov)

**PERIODICAL:**

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 3, pp 643-645  
(USSR)

**ABSTRACT:**

Not only different species but also closely related strains of  
the same microbe species may differ with respect to their  
sensitivity and the frequency of the induced mutation (Refs 2-5).  
As a result of their investigations of actinomycetes the  
authors were able to provide a comparative analysis of the  
variability with respect to the production of antibiotics in  
strains of the same and of different species. The producer of  
streptomycin, albomycin, oxytetracycline and vitamin B<sub>12</sub> was  
concerned. The strains of the albomycin producer were irradiated  
with X-rays with an intensity of 399 r/sec and a dose of

Card 1/4

Characteristics of the Induced Mutation Process in  
Actinomycetes - the Producers of Antibiotics

SOV/20-125-3-51/63

20 to 640 kr. A bacteriocidal lamp BUV-30 served for the ultra-violet irradiation (wave length 2537 Å) of the producer of oxytetracycline. The irradiation intensity amounted to 100 erg/mm<sup>2</sup>. sec at a distance of 15 cm. The spores of the producer of vitamin B<sub>12</sub> were treated with ethylenimine (dilution 1:7000). Figure 1 shows data concerning the frequency of formation of the plus and minus variants of Act. subtropicus (albomycin producer). An already earlier described regularity (Ref 6) can be seen therefrom: to begin with the number of both plus and minus variants increases with an intensification of the dose. As soon as the curves have reached a certain level, a decrease occurs. In both cases (strains Nr 39 and 738) the highest amount of plus variants is achieved at lower doses than the maximum of the minus variants. Both strains vary considerably with respect to the ratio between plus and minus variants. It was proved that the type of variability differs between the highly active "cultivated" strains and those of the wild type (with low activity). Figure 2 shows the curves of variability with respect to the frequency of plus and minus variants in highly

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Characteristics of the Induced Mutation Process in      SOV/20-125-3-51/63  
Actinomycetes - the Producers of Antibiotics

active strains of the producers of streptomycin and oxytetracycline (Act. globisporus streptomycini, strain Nr 66 and Act. rimosus, strain Nr 293 respectively). The former was preserved alone by several times selecting it under the effect of X-rays and ultraviolet rays, the latter under ultraviolet irradiation. Figure 2 shows that the results are similar to those obtained for the active strain Act. subtropicus Nr 738, i.e. the frequency of the minus variants increases that of the plus variants considerably. In the case of the little active, not several times selected strain H-6 of Act. olivaceus (the producer of vitamin B<sub>12</sub>) the frequency of the plus variants was much higher than that of the minus variants under the effect of ethylenimine, just like with the little active strain Nr 39 of Act. subtropicus (Fig 3). Thus, it was proved that in strains of various species in many cases a similarity is possible with respect to the type of induced variability of the characteristic feature of the formation of an antibiotic, whereas strains of one and the same species may highly differ in this respect. This regularity appears also in the case when

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Characteristics of the Induced Mutation Process in      SOV/20-125-3-51/63  
Actinomycetes - the Producers of Antibiotics

different strains are subjected to the effect of completely different mutagenous factors (see above). Finally, the authors endeavor to explain these facts. There are 3 figures and 9 references, 3 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov  
(All-Union Scientific Research Institute of Antibiotics)

PRESENTED: November 19, 1958, by I. I. Shmal'gauzen, Academician

SUBMITTED: November 19, 1958

Card 4/4

ALIKHANYAN, S.I.; ZHDANOVA, N.I.

Comparative mutagenic effect of ethylenimine, ultraviolet  
and X rays. Dokl.AN SSSR 133 no.2:454-456 JI '60.  
(MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.  
Predstavleno akademikom I.I.Shmel'gauzenom.  
(ETHYLENIMINE) (RADIOMIMETIC SUBSTANCES)

ALIKHANYAN, S.I.; GARINA, K.P.; ZHDANOVA, N.I.; VLADIMIROV, A.V.

Selection of a strain of *Act. antibioticus* for the production of  
oleandomycin. *Antibiotiki* 6 no.10:867-871 0 '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.  
(OLEANDOMYCIN) (ACTINOMYCES)

ZHDANOVA, N.I.

Use of ethylenimine in the selection of the producer of vitamin B<sub>12</sub>.  
Trudy Inst. mikrobiol. no.10:154-158 '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.  
(ACTINOMYCES) (ETHYLENIMINE)  
(CYANOCOBALAMINE)

SECRET  
AC 100-100-100

ADDITIONAL INFORMATION, N. Y. 100-100-100

FIELD OFFICE, NEW YORK, N. Y. 100-100-100

SECRET  
100-100-100

SECRET  
100-100-100

genotype, genetic effect, culture method, HELLAPATHIC, HELLAPATHIC

ABSTRACT: Anticancer potency of  
the endomycin produced with the  
appearance of the mutant  
role of mutations in spreading  
productivity variability with  
to all agent strains and 44  
strain No. 12 was selected  
genetic variation of the  
the strain No. 12 was selected

APPROVED FOR RELEASE: 07/19/2001

of variability variability for  
shortly with cross mutant  
variability and the effects  
of mutations. Each of the  
the population at a certain  
completely to a certain

1. ~~SECRET~~  
ASSOCIATE No. 79850712070  
and P. L. KIKOV. All. In. of. Sov. M. 1971. P. 11  
SUBMITTED: 1971. P. 11  
NR. 1971. 10V. 1. P. 11

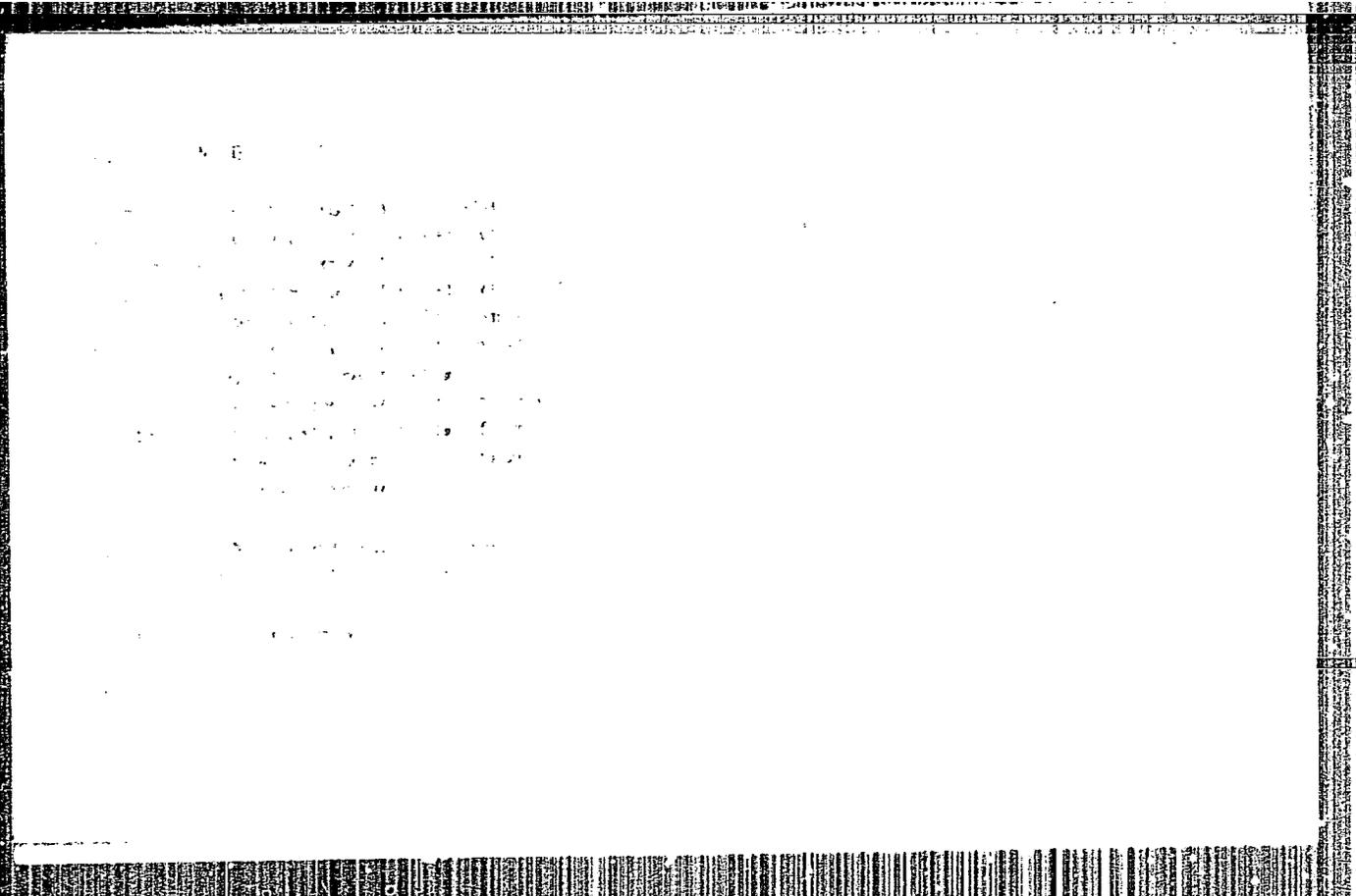
ZHDANOVA, N.I.

Use of two alkylsulfates in selecting oleandomycin-producing organisms. Antibiotiki 10 no.1:18-23 Ja '65.

(MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva.





ZHDANOVA, N.M.

Growth of some soil Hyphomycetes from the group Dematiaceae at different temperatures. Mikrobiol. zhur. 26 no.5:11-18 '64. (MIRA 18:7)

1. Institut mikrobiologii i virusologii AN UkrSSR.

PIDOPLICHKOM, N.M. [Pidoplichko, M.M.]; MOSKOVETS, V.S. [Moskovets', V.S.];  
ZHDANOVA, N.N. [Zhdanova, N.M.]

Distribution of fungi from the genus *Penicillium* in the corn  
rhizosphere in ten steppe regions and the forest steppe of the  
Ukrainian S.S.R. Mikrobiol.zhur. 24 no.3:42-49 '62. (MIRA 15:8)

1. Institut mikrobiologii AN UkrSSR.  
(UKRAINE--PENICILLIUM) (CORN (MAIZE)) (RHIZOSPHERE MICROBIOLOGY)

PIDOPLICHKO, N.M. [Pidoplichko, N.M.]; MOSKOVETS, V.S. [Moskofets', V.S.]  
ZHDANOVA, N.N. [Zhdanova, N.M.]

Effect of some fungi of the corn rhizosphere on its seedlings.  
Mikrobiol. zhur. 22 no. 3:15-20 '60. (MIRA 13:12)

1. Iz Instituta mikrobiologii AN USSR.  
(UKRAINE—CORN (MAIZE)) (RHIZOSPHERE MICROBIOLOGY)

MOSKOVETS, V.S. [Moskovets', V.S.]; ZHDANOVA, N.N. [Zhdanova, N.M.]

Quantitative and generic composition of the fungial flora of the corn rhizosphere in some steppe and forest-steppe provinces of the Ukraine. Mikrobiol. zhur. 22 no. 3:21-26 '60. (MIRA 13:12)

1. Iz Instituta mikrobiologii AN USSR.  
(UKRAINE—CORN (MAIZE)) (RHIZOSPHERE MICROBIOLOGY)

ZHDANOVA, N.M. [Zhdanova, N.M.]

Relation of some soil Hyphomycetes from the group Dematiaceae to the concentrations of saltpeter in the nutrient medium. Mikrobiol. zhur. 26 no.6:31-37 '64. (MIRA 18:8)

1. Institut mikrobiologii i virusologii AN UkrSSR.

PIDOPLICHKO, N.M. [Pidoplichko, N.M.]; MOSKOVETS, V.S. [Moskovets', V.S.];  
ZHDANOVA, N.N. [Zhdanova, N.N.]

Distribution of fungi of the genus *Fusarium* in the rhizosphere  
of corn in ten provinces of the steppe and forest-steppe zones  
of the Ukraine. Mikrobiol. zhur. 24 no.6:19-26 '62 (MIRA 17:5)

1. Institut mikrobiologii AN UkrSSR.

ZHDANOVA, N.N.

Feeding habits of young pike perch on the Uzyak Fish Spawning and Rearing Farm in the lower Don Valley in 1958-1960. Trudy AzNIIRKH no.6:189-215 '63.

Growth of young pike perch in the rearing ponds of the Uzyak Fish Spawning and Rearing Farm in the lower Don Valley.  
Ibid. 217-228 (MIRA 17:8)

PIDOPLICHKO, N.M. [Pidoplichko, N.M.]; MOSKOVETS, V.S. [Moskovets', V.S.];  
ZHDANOVA, N.N. [Zhdanova, N.N.]

Effect of some fungi from the corn rhizosphere on its sprouts.  
Mikrobiol. zhur. 25 no.6:38-43 '63 (MIRA 17:7)

1. Institut mikrobiologii AN UkrSSR.

ZHDANOVA, N.N. [Zhdanova, N.N.]

Distribution of dark-colored Hyphomycetes in the rhizosphere  
of corn in steppe and forest-steppe areas of the Ukrainian  
S.S.R. Mikrobiol. zhur. 25 no.4:28-34'63. (MIRA 16:9)

1. Institut mikrobiologii AN UkrSSR.  
(UKRAINE—RHIZOSPHERE MICROBIOLOGY)  
(UKRAINE—HYPHOMYCETES)

ZHDANOVA, N.N. [Zhdanova, N.M.]

Rare and new dark-colored Hyponycetes in the soils of the  
Ukraine. Mikrobiol. zhur. 25 no.5:13-19 '63 (MIRA 16:12)

1. Institut mikrobiologii AN UkrSSR.

ZHDANOVA, N.N.

KHALABUDA, T.V.; ZHDANOVA, N.N.

Species of the genus *Mortierella* in the pine-oak forest  
soils of the environs of Kiev. Ukr. bot. zhur. 14 no.1:60-69  
'57. (MLRA 10:5)

1. Institut mikrobiologii AN URSS, vidil mikologii.  
(Kiev Province--Soil micro-organisms)  
(Forest soils)

ZHDANOVA, N.P.

ZHDANOVA, N.P. (Moskva)

At the dawn of Soviet industrial hygiene; memories of a sanitary  
physician. Gig.truda i prof.sab. 1 no.5:52-54 S-O '57.  
(INDUSTRIAL HYGIENE--HISTORY) (MIRA 10:11)

ZHDANOVA, N.N. [Zhdanova, N.M.]

Resistance of some dark Hyphomycetes to ultraviolet rays.  
Mikrobiol. zhur, 26 no.2:75-82 '64. (MIRA 18:8)

1. Institut mikrobiologii AN UkrSSR.

ZHDANOVA, N.N. [Zhdanova, N.M.]

Relation of some soil Hyphomycetes of the Dematiaceae group to various levels of the relative humidity of the air. Mikrobiol.zhur. 26 no.4:49-54 '64. (MIRA 18:10)

1. Institut mikrobiologii i virusologii AN UkrSSR.

ZHDANOVA, N.S. (Moscow)

Prevention, treatment and care of hypertension. Med. sestra no. 4:8-12  
Ap '54. (MIRA 7:5)

(Hypertension) (Nurses and nursing)

*Lina Stepanovna*

ZHDANOVA, N.S., kand. med. nauk

Study of the phasic structure of the septole by the method of  
polycardiographic registration. Azerb. med. zhur. 41 no. 10:  
15-22 0 '64 (MIRA 19:1)

1. Iz Tsentral'noy klinicheskoy bol'nitsy (glavnyy vrach -  
A.I. Khrimlyan) 4-go Glavnogo upravleniya pri Ministerstve  
zdravookhraneniya SSSR (nachal'nik upravleniya - prof. A.M. Markov,  
glavnyy terapevt - prof. A.G. Gukasyan).

ZHDANOVA, N. S., Cand of Med Sci -- (diss) "Disturbances to the Rhythm  
During a Myocardial ~~infarction~~ Infarction," Moscow, 1959, 12 pp  
(Central Institute for theAdvanced Training of Physician) (KL, 6-60, 125)

VELICHKIN, I.I., kand. tekhn. nauk; NISNEVICH, A.I., kand. tekhn. nauk; ZUBIYETOVA, M.P., kand. tekhn. nauk; ZHDANOVSKIY, N.S., doktor tekhn. nauk, retsenzent; SAVKIN, I.P., inzh. red.

[Rapid wear tests of diesel engines] Uskorennye ispytaniia dizel'nykh dvigatelei na iznosostoikost'. Moskva, Izd-vo "Mashinostroenie," 1964. 182 p. (MIRA 17:7)



CA

PROCESSES AND PROPERTIES INDEX

19

Pinacol hydrate. N. V. Zhdanov and A. P. Timofeev  
Russ. 40,971, Jan. 31, 1933. 51g is heated with 1/2 its  
wt. of HgCl<sub>2</sub> in stand. acetone soln., together with C<sub>2</sub>H<sub>6</sub>  
and a further amt. of acetone or a mixt. of acetone and  
C<sub>2</sub>H<sub>6</sub> is gradually added. The mixt. is finally brought to  
boiling and the pinacol hydrate is sepd. in the usual man-  
ner.

COMMON ELEMENTS

COMMON SYMBOLS

AS. S. A. METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROCEDURES AND PROPERTIES INDEX

21

**Measurement of the Moisture in a Gas.** N. V. Zhukovskaya, R. L. Minusareva and P. A. Tsarev. (Zavolzhskaya Laboratoriya, 1949, vol. 15, June, pp. 647-649). [In Russian]. Two rapid methods are described for the measurement of the moisture content of a gas. The first method depends on the use of an indicator made by drying at 180-200° C. silica gel or alumina which has been soaked in an aqueous solution of cobaltous chloride. The range can be increased because the moisture contents at which the colour changes of this indicator take place are influenced by the conditions of its preparation. In the second method, the temperature of a metallic mirror, held in the gas stream, is lowered by conduction through the copper rod to which it is soldered until the mirror becomes fogged. The temperature at which fogging occurs is measured with the aid of a thermocouple attached to the mirror, this temperature being the dew point. —A. K.

ASM-55A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-9

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-9"

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-9

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064620020-9"

SERGIENKO, S.R.; ZHDANOVA, N.V.; TOPCHYEV, A.V., akademik.

Conversions of methyl-2-butadiene-1,3 over an aluminosilicate catalyst.  
Dokl.AN SSSR 91 no.5:1147-1150 Ag '53. (MIRA 6:8)

1. Akademiya nauk SSSR (for Topchiyev). 2. Institut nefi Akademii nauk  
SSSR (for Sergienko and Zhdanova). (Butadiene)

ZHDANOVA, N.V.; ZAREMBO, K.S.; MIKHAYLEVSKIY, P.A.; RABINOV, I.L.

Surface coating of asbestos-cement pipes to increase their  
gastightness. Trudy VNI no.5:196-200 '54. (MLRA 9:1)  
(Gas, Natural--Pipelines)

SERGIYENKO, S.R.; ZHDANOVA, N.V.

Conversion of diolefins with a conjugate double bond system using  
aluminosilicate and aluminum chromate catalysts. Trudy Inst. nefti  
no.6:53-70 '55. (MIRA 8:12)

(Olefins)



SERGIYENKO, Semen Romanovich; Prinsipali uchastiye: SKLYAR, V.T.; GORDASH, YU.T.; MAYOROV, L.S.; ZHDANOVA, N.Y.; DAVYDOV, B.N.; LEBEDEV, Is.V.; TETERINA, M.P.; L'VOVA, L.A., vedushchiy red.; TROFIMOV, A.V., tekhn.red.

[High molecular weight compounds in petroleum] Vysokomolekuliarnye soedineniya nefi. Moskva, Gos.nauchno-tekhn.isd-vo nefi. i gornotoplivnoi lit-ry, 1959. 412 p. (MIRA 12:12)  
(Petroleum--Analysis) (Macromolecular compounds)

ACCESSION NR: AP4044551

S/0204/64/004/004/0521/0529

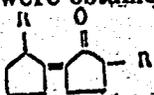
AUTHOR: Stukanova, L. N., Zhdanova, N. V., Yepishev, Vi. I., Petrov, Al. A.

TITLE: Synthesis and properties of hydrocarbons of the dicyclopentyl series

SOURCE: Neftekhimiya, v. 4, no. 4, 1964, 521-529

TOPIC TAGS: hydrocarbon, dicyclopentyl, self-condensation, ketone, alkylation, aldehyde, 2-alkylcyclopentanone, 2-alkyl-5-(2-alkylcyclopentylidene)-cyclopentanone

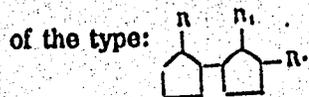
ABSTRACT: Thirteen homologs of dicyclopentyl, with 11-24 C atoms, were synthesized with special regard to the polysubstituted dicyclopentyls, the presence of which in crude oils is very probable. For the synthesis of dicyclopentyl derivatives, the well-known self-condensation of cyclopentanone was used resulting in 2-cyclopentylidenecyclopentanone. From this ketone a series of homologs of dicyclopentyl with different radicals having 1-14 C atoms were obtained. Then, by self-condensation of 2-alkylcyclopentanones, ketones of the type

(where  $R = C_2H_5, C_4H_9, C_7H_{15}$ ).

were obtained, which were converted directly or by the Grignard reaction to hydrocarbons

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ACCESSION NR: AP4044551



The 2-alkylcyclopentanones necessary for the reaction were obtained by alkylation of cyclopentanone with aldehydes (propionic, butyric and enanthic). The properties and names of the synthesized hydrocarbons are tabulated. The Grignard reaction was carried out with both unsaturated ketones and a saturated ketone-cyclopentylcyclopentanone. With unsaturated ketones, the yield of tertiary alcohols was much higher. The chromatogram of 1-methyl-2-cyclopentylcyclopentane, obtained by the reaction of methyl-magnesium iodide with both unsaturated and saturated ketones, is given. In both cases, the identical mixture of trans and cis-1-methyl-2-cyclopentylcyclopentanes were obtained. Initial products for the preparation of 1-tetradecyl-2-cyclopentylcyclopentane were cyclopentylidenecyclopentanone (b.p. 127-128C/17 mm Hg,  $n_D^{20} = 1.5210$ ; 99% ketone) and tetradecyl bromide (b.p. 178-179C/22 Hg,  $n_D^{20} = 1.4596$ ). The yield was 38%. 1-methyl-1-ethyl- and 1-hexyl-2-cyclopentylcyclopentanes were prepared in an analogous manner in yields of 25, 18 and 10%, respectively. The preparation of 2-alkylcyclopentanones by alkylation of cyclopentanone with aldehydes is more advantageous and gives better results than the

Card 2/3

ACCESSION NR: AP4044551

earlier method involving alkylation of the sodium derivative of carbethoxycyclopentanone by alkyl halides with subsequent ring opening and cyclization of the alkyl adipic acids. The alkylation with enanthol, yielding 2-heptylcyclopentanone; and the alkaline self-condensation of 2-butylcyclopentanone are given as model reactions. The properties of the heptyl-, propyl- and butyl-cyclopentylidene cyclopentanones are tabulated, and self-condensation of alkylpentanones is described in detail. The chemical pathway of the preparation of hydrocarbons of the type 1-alkyl-3-(2-alkylcyclopentyl)-cyclopentane is given, and the preparation of 1-propyl-2-(3,4-dimethylcyclohexyl)-3-(2-propyl cyclopentyl) -cyclopentane is described in detail. A fraction boiling at 174-175C was obtained from the resulting product by fractional distillation. Orig. art. has: 2 figures, 3 tables and 2 chemical equations.

ASSOCIATION: Institut geologii i razrabotki goryuchikh iskopayemy\*kh (Institute of Geology and the Development of Fossil Fuels)

SUBMITTED: 20Dec63

ENCL: 00

SUB CODE: OC

NO REF SOV: 004

OTHER: 010

Card 3/3

ZHDANOVA, Nina Vladimirovna; KHALIF, Al'bert L'vovich; NOVIKOVA, M.M.,  
ved. red.

[Dehumidification of natural and casinghead gases] Osushka prirod-  
nykh i poputnykh gazov. Moskva, Gostoptekhizdat, 1962. 110 p.  
(MIRA 16:1)

(Gas, Natural)

S/075/60/015/003/022/033/XX  
B005/B066

AUTHORS: Zhdanova, N. V. and Mikhnovskaya, A. A.  
TITLE: On the Problem of a Determination Method for Benzene Carboxylic Acids  
PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 3, pp. 353 - 354

TEXT: The authors of the present paper determined number and position of the substituents on the benzene nucleus in fractions of monocyclic aromatic hydrocarbons which were separated from the high-molecular portion of petroleum on silica gel by means of chromatography. The determination was carried out by alkaline oxidation with potassium permanganate at 98°C (Ref.2) and subsequent separation of the resultant carboxylic acid mixture by the method by G. Khodzhayev and A. Ibragimov (Ref.3). By this method, the mono-, di-, and trisubstituted benzene carboxylic acids are separated, one after the other, from a dry mixture of carboxylic acids with potassium chloride by extraction with different solvents in a special device. The most critical point of this method is the determina-

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On the Problem of a Determination Method  
for Benzene Carboxylic AcidsS/075/60/015/003/022/033/XX  
B005/B066

tion of trimesic acid which is extracted along with potassium chloride by water and has to be converted to its insoluble barium salt  $[\text{C}_6\text{H}_3(\text{COO})_3]_2\text{Ba}_3 \cdot 2\text{H}_2\text{O}$  for the quantitative determination. Theoretically, this salt contains 47.7% barium; the barium salts isolated in the determination described contained, however, up to 59% barium. This indicates that the former barium salt of trimesic acid was contaminated by barium salts of other acids. The investigations of the authors disclosed that this impurity consists of barium oxalate. On separation of the acid mixture by the method by Khodzhayev and Ibragimov the trimesic acid is always accompanied by oxalic acid. Thus, the co-precipitated amount of oxalic acid has to be quantitatively determined in addition to the determination of trimesic acid in the form of barium salt. This determination is possible by the titrimetric method, oxalic acid may, however, also be separated from trimesic acid by sublimation. Both methods give concordant results. The authors further found that also the benzene carboxylic acids which are isolated by the method by Khodzhayev and Ibragimov by extraction with acetone, always contain oxalic acid. Although the authors of Ref.3 applied their method to the quantitative

Card 2/3

On the Problem of a Determination Method  
for Benzene Carboxylic Acids

S/075/60/015/003/022/033/XX  
B005/B066

determination of benzene carboxylic acids which were obtained by extraction from aromatic petroleum fractions, they used, when developing this method, only artificial mixtures of pure benzene carboxylic acids and did not consider in this connection that on oxidation of aromatic petroleum fractions with potassium permanganate also oxalic acid results which interferes with the suggested determination of benzene carboxylic acids. There are 6 references: 5 Soviet and 1 German.

SUBMITTED: May 25, 1959

Card 3/3

STUKANOVA, I.N.; ZHDANOVA, N.V.; YEPISHOV, V.I.; FITKOV, A.I.A.

Synthesis and properties of the hydrocarbons of the dicyclopentyl series. *Neftekhimiya* 4 no.4:521-529 JI-Ag '64. (MIRA 17:10)

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5(4) PHASE I BOOK EXPLOITATION 50V/2216

Soveshchaniye po elektrokimii. tch, Moskva, 1956.

Trudy...i (sbornik) (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izdatel'stvo Khim., 1959. 868 p. Errata slip inserted. 2,500 copies printed. Sponsoring Agency: Akademiya nauk SSSR, Otdeleniye khimicheskikh nauk.

Editorial Board: A.K. Frumkin (resp. Ed.) Academician, O.A. Yasin, Professor, S.I. Zhdanov (resp. Secretary), S.M. Kabanov, Professor, V.M. Kabanov (resp. Secretary), B.M. Kabanov, Professor, L.Korotkiy, Doctor of Chemical Sciences, V.V. Losev, P.D. and G.K. Plotnikov, A. Solov'yev, V. Stanger, Professor, Tech. Ed. T.A. Krusakova.

PURPOSE: This book is intended for chemical and electrical engineers, physicists, metallurgists and researchers interested in various aspects of electrochemistry.

COVERAGE: The book contains 127 of the 138 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences, USSR. The collection pertains to different branches of electrochemical kinetics, double layer theories and galvanic processes in metal electroposition and industrial electrolysis. Abridged discussions are given at the end of each division. Abridged discussions not included are: 1) papers published in periodicals prior to 1956; 2) papers which have been published in periodicals after 1956. References are given at the end of most of the articles.

- A.A. Zhdanova-Gor'kiy-Polytechnic Institute Isani A.A. Zhdanov). Influence of Aging Processes on the Work of Alkaline-Zinc Elements 768
- Laboritsey, P.P. Theory of Processes Occurring at Oxide Electrodes of Chemical Sources of Current 773
- Rozentavskiy, S. A., and V.I. Lesina. Mechanism of the Activation of an Iron Electrode With Small Additions of Nickel Oxides 781
- Balashova, M.A.; V.A. Ivanov, and I.D. Kombe (Institute of Electrochemistry, Academy of Sciences, USSR). Using Tagged Atoms to Study Processes in Chemical Sources of Current 788
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Case of fatal injury from an electric current following physical therapy. Sud.-med.ekspert. 2 no.1:48-51 Ja-Mr.'59. (MIRA 13:4)

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(ELECTRIC SHOCK) (DIATHERMY)

PROCEDURES AND PROPERTIES INDEX

14

CA

Deodorizing water in army camps at the front. A. G. Pulyakov, O. O. Zhdanova and M. P. Annolova. *Sov. Zdravookhraneniia Turkmenn* 1947, No. 2, 22-5.--Odors due to putrefaction of plant material in water can be partially removed by (a) adding 3-5 drops of 1:1000  $KMnO_4$  soln. per 100 cc. of water, letting stand 1 hr., and treating with  $NaOH$  soln., then with  $Ca(OH)_2$  soln. to alk. reaction, or (b) boiling the water with permanganate for 15 min. (adding the  $KMnO_4$  soln. dropwise until a pink color persists) and on cooling adding  $Ca(OH)_2$  soln. until the ppt. of  $MnO_2$  appears. Odor from putrefaction of animal waste matter cannot be removed by permanganate. Powd. charcoal (1 g. per l. of water) completely removes odors of plant origin in 15-20 min.; animal odors are not completely eliminated. Other methods were found unsatisfactory. C. S. Shapiro

METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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